

ABSTRACT OF THE DISCLOSURE

A method and system for evaluating fraud risk in an electronic commerce transaction between consumer and a merchant over a network is disclosed. The merchant requests service from the system over the network using a secure, open messaging protocol. An e-commerce transaction or electronic purchase order is received from the merchant, the level of risk associated with each order is measured, and a risk score is returned to the merchant. In one embodiment, data validation, highly predictive artificial intelligence pattern matching, network data aggregation and negative file checks are used to examine numerous factors to calculate fraud risk. The fraud screening system performs analysis that utilizes data elements submitted with the order, and includes data integrity checks and correlation analyses based on the characteristics of the transaction. Other analysis includes a comparative comparison of the current transaction against past known fraudulent transactions, and a search of a transaction history database to identify abnormal velocity patterns, name and address changes, and known defrauders. A risk score is generated and compared to the merchant's specified risk threshold. The result is returned to the merchant for order disposition. In one alternative, scoring algorithms are regularly refined through the use of a closed-loop risk modeling process that enables the service provided by the system to be fine-tuned to adapt to new or changing fraud patterns.